UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/721,982	SIMPSON ET AL.
	Examiner	Art Unit	
	HILINA S. KASSA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>13 June 2008</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,4,5,11-13,15 and 19-22</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,4,5,11-13,15 and 19-22</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The amendment submitted on 06/31/2008 has been acknowledged. Claims 1, 4-5, 11-13, 15, 19-22 and 36-37 are pending.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 4-5, 11-13, 15, 19-22 and 36-37 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 4-5, 13, 15, 20-22 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slick et al. (US Patent Number 7,111,322 B2) in view of Kurishita et al. (US Patent Number 7,100,198 B2).

(1) regarding claim 1:

    As shown in figure 10A, Slick et al. discloses generating a digital signature by encrypting with a private key control information (**column 1, lines 29-30; note that**

private key is generally maintained within the printer and in column 2, lines 38-41,
it is stated that a key is encrypted within the printer itself. Also, in column 16,
lines 39-42, the key used is a digital signature); the signed request including the
digital signature (**column 16, lines 40-42; note that the key is used to apply a digital**
signature to the signed hash fields); decrypting with a public key associated with the
private key the digital signature to obtain decrypted control information (**column 1, line**
65-column 2, lines 4; note that the validated key gets checked on the public key
by performing a hashing algorithm over the key. Also, the network device utilizes
a corresponding encryption key of the new encryption keypair to decrypt the
encrypted print job); and the printing device comparing the decrypted control
information with other information to determine if they match (**column 11, lines 61-66;**
note that the encrypted key is checked to match an expected value), a match
indicating that the signed request is valid (**column 2, lines 42-44; note that the key i.e.**
digital signature as described in column 16, lines 39-42, gets validated);

Slick et al. disclose all of the subject matter as described as above except for
specifically teaching a method for controlling a printing mode; receiving a request to
change a printing mode of a printing device; generating a signed request that requests
changing of the printing mode; providing the signed request to the printing device; the
printing device validating the signed request; and the printing device enabling or
disabling the printing mode in accordance with the signed request if the signed request
is valid.

However, As shown in figures 4-5, Kurishita et al. disclose a method for controlling a printing mode (**column 2, lines 1-9; note that a print method for securely printing print data is disclosed**), the method comprising: receiving a request to change a printing mode of a printing device (**column 5, lines 30-34; note that the printing device receives instruction from the host computer**); generating a signed request that requests changing of the printing mode (**column 6, lines 11-17; note that there is a generated user information for authenticating the print data**); providing the signed request to the printing device (**column 6, lines 11-17; note that user inputs user name as a signed request**); the printing device validating the signed request (**column 6, lines 18-25; note that based upon the requestors input i.e. user name selected, the user gets validated or authorized**); and the printing device enabling or disabling the printing mode in accordance with the signed request if the signed request is valid (**column 6, lines 26-32; note that if the data entered in valid, the print data stored is transmitted to be printed or executed**).

Slick et al. and Kurishita et al. are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to a method for controlling a printing mode; receiving a request to change a printing mode of a printing device; generating a signed request that requests changing of the printing mode; providing the signed request to the printing device; the printing device validating the signed request; and the printing device enabling or disabling the printing mode in accordance with the signed request if the signed request is valid. The suggestion/motivation for doing so would

have been to have a reliable and secure print system such that a user having issues a

print request can reliably obtain printouts while observing secrecy (column 1, lines 7-

10). Therefore, it would have been obvious to combine Slick et al. and Kurishita et al. to

obtain the invention as specified in claim 1.

(2) regarding claim 4:

Slick et al. further disclose the method of claim 1, wherein generating a digital

signature request comprises encrypting control information that includes an

identification code of the printing device (**column 11, lines 52-61; note that the printer

has the appropriate encryption key such that it will not needlessly print out

garbled data**).

(3) regarding claim 5:

Slick et al. further disclose the method of claim 1, wherein generating a signed

request comprises generating a signed request that further includes an unencrypted

version of the control information (**column 14, lines 43-45; note that the unencrypted

version is used to generated the secure client header**) and wherein the other

information used in the comparison comprises the unencrypted version of the control

information (**500, figure 8, column 14, lines 47-53; note that the unencrypted

version is utilazed to check the if the print job requires some type of recipient

authentication before the print job is to be printed out**).

(4) regarding claim 13:

As shown in figure 10A, Slick et al. discloses means provided on the computer

for generating a digital signature by encrypting with a private key control information

(**column 1, lines 29-30; note that private key is generally maintained within the**

printer and in column 2, lines 38-41, it is stated that a key is encrypted within the

printer itself. Also, in column 16, lines 39-42, the key used is a digital signature);

the signed request including the digital signature (**column 16, lines 40-42; note that**

the key is used to apply a digital signature to the signed hash fields); decrypting

with a public key associated with the private key the digital signature to obtain decrypted

control information (**column 1, line 65-column 2, lines 4; note that the validated key**

gets checked on the public key by performing a hashing algorithm over the key.

Also, the network device utilizes a corresponding encryption key of the new

encryption keypair to decrypt the encrypted print job); and means for the printing

device for comparing the decrypted control information with other information to

determine if they match (**column 11, lines 61-66; note that the encrypted key is**

checked to match an expected value), a match indicating that the signed request is

valid (**column 2, lines 42-44; note that the key i.e. digital signature as described in**

column 16, lines 39-42, gets validated);

Slick et al. disclose all of the subject matter as described as above except for

specifically teaching a system for controlling a printing mode; the system including a

computer and a printing device, the system further comprising: means provided on the

computer for generating a signed request that requests changing of the printing mode of

a printing device; means provided for the printing device for validating the signed

request; and means provided on the printing device for enabling or disabling the printing

mode in accordance with the signed request if the signed request is valid.

However, As shown in figures 4-5, Kurishita et al. disclose a system for

controlling a printing mode (**column 2, lines 1-9; note that a print method for**

securely printing print data is disclosed); the system including a computer and a

printing device (**104, 401, figure 1**), the system further comprising, the method

comprising: means provided on the computer for generating a signed request that

requests changing of the printing mode of a printing device (**column 6, lines 11-17;**

note that there is a generated user information for authenticating the print data.

Also, column 5, lines 30-34; note that the printing device receives instruction

from the host computer); providing the signed request to the printing device (**column**

6, lines 11-17; note that user inputs user name as a signed request); means

provided for the printing device for validating the signed request (**column 6, lines 18-**

25; note that based upon the requestors input i.e. user name selected, the user

gets validated or authorized); and means provided on the printing device for enabling

or disabling the printing mode in accordance with the signed request if the signed

request is valid (**column 6, lines 26-32; note that if the data entered in valid, the**

print data stored is transmitted to be printed or executed).

Slick et al. and Kurishita et al. are combinable because they are from the same

field of endeavor i.e. network printing. At the time of the invention, it would have been

obvious to a person of ordinary skilled in the art to have a system for controlling a

printing mode; the system including a computer and a printing device, the system

further comprising: means provided on the computer for generating a signed request

that requests changing of the printing mode of a printing device; means provided for the

printing device for validating the signed request; and means provided on the printing

device for enabling or disabling the printing mode in accordance with the signed request

if the signed request is valid. The suggestion/motivation for doing so would have been

to have a reliable and secure print system such that a user having issues a print request

can reliably obtain printouts while observing secrecy (column 1, lines 7-10). Therefore, it

would have been obvious to combine Slick et al. and Kurishita et al. to obtain the

invention as specified in claim 13.

     (5) regarding claim 15:

     Slick et al. further disclose the method of claim 13, wherein generating a digital

signature request comprises encrypting control information that includes an

identification code of the printing device (**column 11, lines 52-61; note that the printer**

has the appropriate encryption key such that it will not needlessly print out

garbled data).

     (6) regarding claim 21:

     Slick et al. further disclose the method of claim 20, wherein generating a digital

signature request comprises encrypting control information that includes an

identification code of the printing device (**column 11, lines 52-61; note that the printer**

has the appropriate encryption key such that it will not needlessly print out

garbled data).

(7) regarding claim 22:

Slick et al. further disclose the method of claim 20, wherein generating a signed

request comprises generating a signed request that further includes an unencrypted

version of the control information (**column 14, lines 43-45; note that the unencrypted**

version is used to generated the secure client header) and wherein the other

information used in the comparison comprises the unencrypted version of the control

information (**500, figure 8, column 14, lines 47-53; note that the unencrypted**

version is utilazed to check the if the print job requires some type of recipient

authentication before the print job is to be printed out).

(8) regarding claim 36:

Slick et al. disclose all of the subject matter as described as above except for

specifically teaching wherein the identification code is a serial number or a media-

access control (MAC) address of the printing device.

However, Kurishita et al. disclose wherein the identification code is a serial

number or a media-access control (MAC) address of the printing device (**column 4,**

lines 28-35; note that the virtual printer is selected as the security printer based

on the name stored in the RAM or external memory).

Slick et al. and Kurishita et al. are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to wherein the identification code is a serial number or a media-access control (MAC) address of the printing device. The suggestion/motivation for doing so would have been to have a reliable and secure print system such that a user having issues a print request can reliably obtain printouts while observing secrecy (column 1, lines 7-10). Therefore, it would have been obvious to combine Slick et al. and Kurishita et al. to obtain the invention as specified in claim 36.

(9) regarding claim 37:

Slick et al. disclose all of the subject matter as described as above except for specifically teaching wherein generating a digital signature comprises encrypting print information that further includes an identity of service provider that controls the printing device, identity of a client wishing to use the printing device, or an indication as to when the requested mode is to expire.

However, Kurishita et al. disclose wherein generating a digital signature comprises encrypting print information that further includes an identity of service provider that controls the printing device, identity of a client wishing to use the printing device, or an indication as to when the requested mode is to expire (**column 10, lines 17-24; note that user's information is selected as a signed request**).

Slick et al. and Kurishita et al. are combinable because they are from the same field of endeavor i.e. network printing. At the time of the invention, it would have been

obvious to a person of ordinary skilled in the art to wherein generating a digital signature comprises encrypting print information that further includes an identity of service provider that controls the printing device, identity of a client wishing to use the printing device, or an indication as to when the requested mode is to expire. The suggestion/motivation for doing so would have been to have a reliable and secure print system such that a user having issues a print request can reliably obtain printouts while observing secrecy (column 1, lines 7-10). Therefore, it would have been obvious to combine Slick et al. and Kurishita et al. to obtain the invention as specified in claim 37.

5.   Claim 20 recites identical feature as claim 13, except claim 20 is a computer-readable media. Thus arguments similar to that presented above for claim 13 are equally applicable to claim 20.

6.   Claims 11-12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slick et al. (US Patent Number 7,111,322 B2) and Kurishita et al. (US Patent Number 7,100,198 B2) as applied to claim 1 above and further in view of Kawamoto et al. (US Patent Number 6,120,197).

(1) regarding claims 11 and 19:
Kurishita et al. and Slick et al. disclose all of the subject matter as described as above except for specifically teaching, wherein enabling or disabling the printing mode comprises enabling or disabling reduced-toner printing.

However, Kawamoto et al. teach wherein enabling or disabling the printing mode comprises enabling or disabling reduced-toner printing (**column 11, lines 60-65; note that the color processing mode can be changed every page in the printer so that the toner can be reduced and a print throughput can be improved**).

Kurishita et al., Slick et al. and Kawamoto et al. are combinable because they are from the same field of endeavor which is network printing method. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art wherein enabling or disabling the printing mode comprises enabling or disabling reduced-toner printing. The suggestion/motivation for doing so would have been in order to save time it takes to change different modes (column 1, lines 47-50). Also, such method also improves print quality (column 1, lines 44-47). Therefore, it would have been obvious to combine Kurishita et al. and Slick et al. with Kawamoto et al. to obtain the invention as specified in claim 11.

(2) regarding claim 12:

Kurishita et al. and Slick et al. disclose all of the subject matter as described as above except for specifically teaching, wherein enabling or disabling the printing mode comprises enabling or disabling CMYK printing.

However, Kawamoto et al. teach wherein enabling or disabling the printing mode comprises enabling or disabling CMYK printing (**column 2, lines 10-15; note that the color processing mode is determined by a page unit of the print data**).

Kurishita et al., Slick et al. and Kawamoto et al. are combinable because they are from the same field of endeavor which is network printing method. At the time of the invention, it would have been obvious to a person of ordinary skilled in the art wherein enabling or disabling the printing mode comprises enabling or disabling CMYK printing. The suggestion/motivation for doing so would have been in order to save time it takes to change different modes (column 1, lines 47-50). Also, such method also improves print quality (column 1, lines 44-47). Therefore, it would have been obvious to combine Kurishita et al. and Slick et al. with Kawamoto et al. to obtain the invention as specified in claim 12.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8.   Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore could be reached at (571) 272- 7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pari-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hilina S Kassa/
Examiner, Art Unit 2625
September 9, 2008

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625